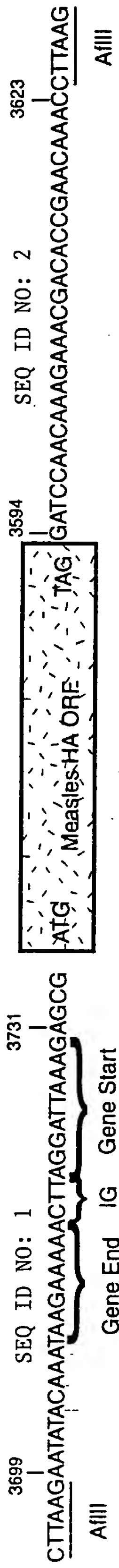
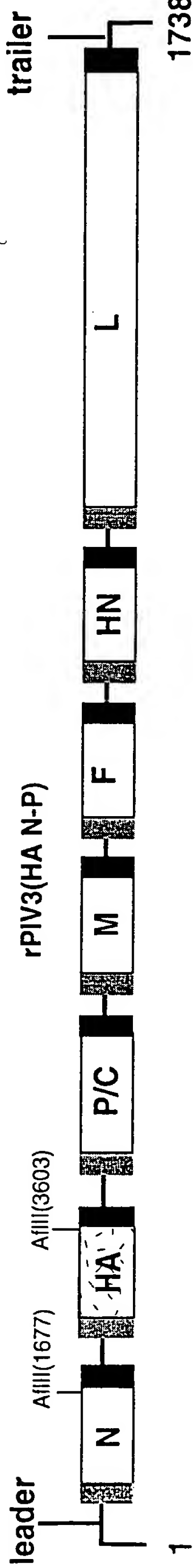
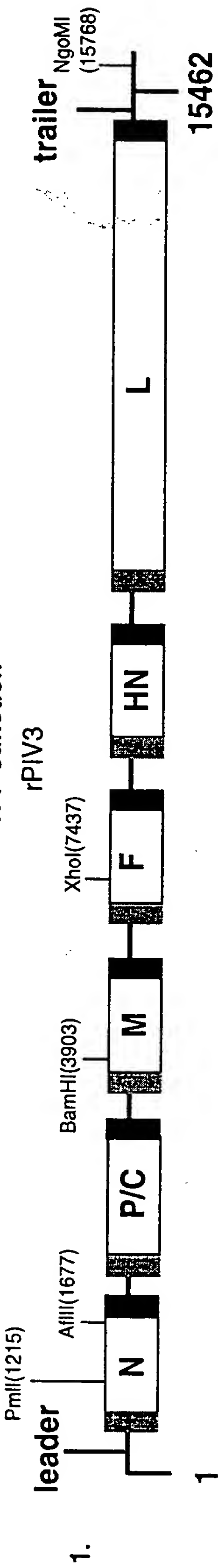


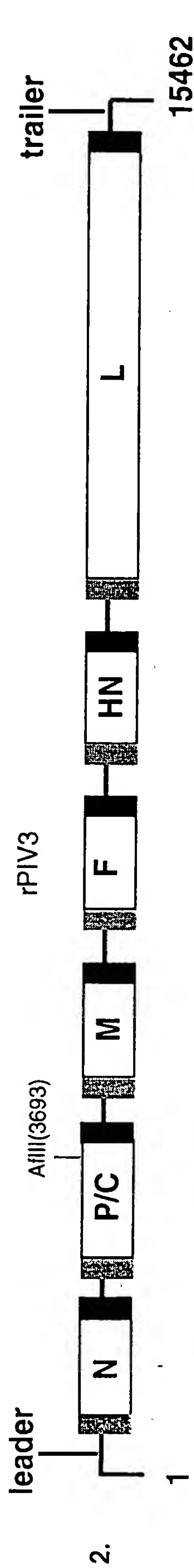
Measles HA insert for N-P and P-M junctions



N-P Junction



P-M Junction



rPIV3(HA P-M)

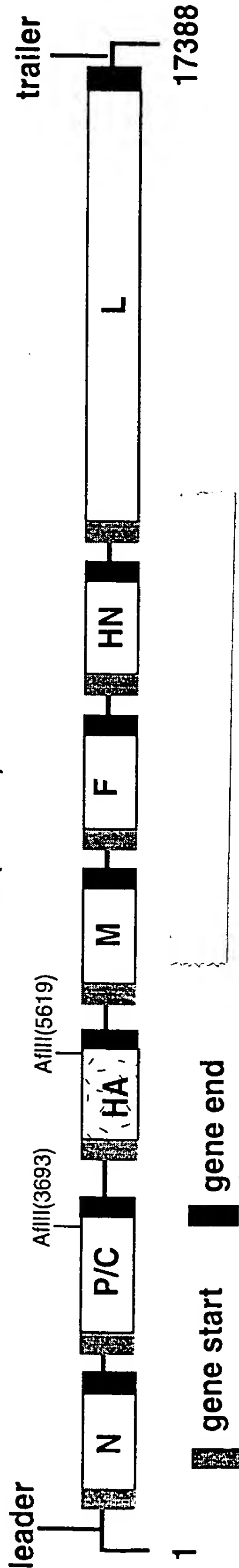
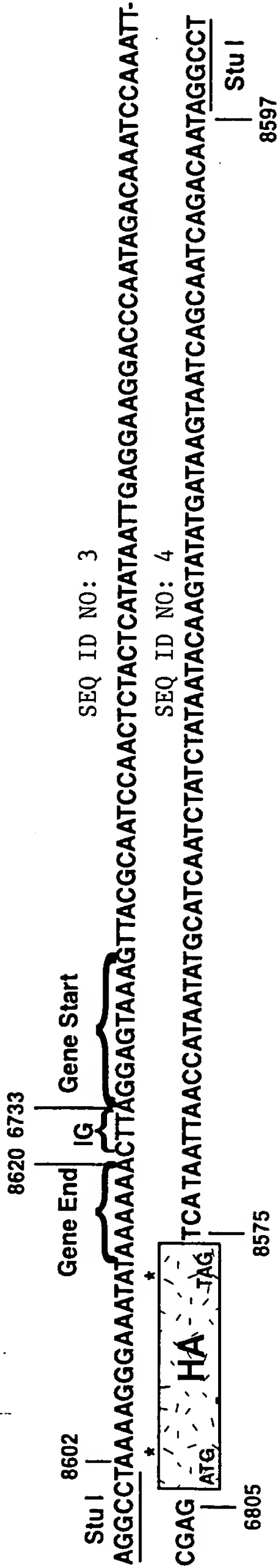


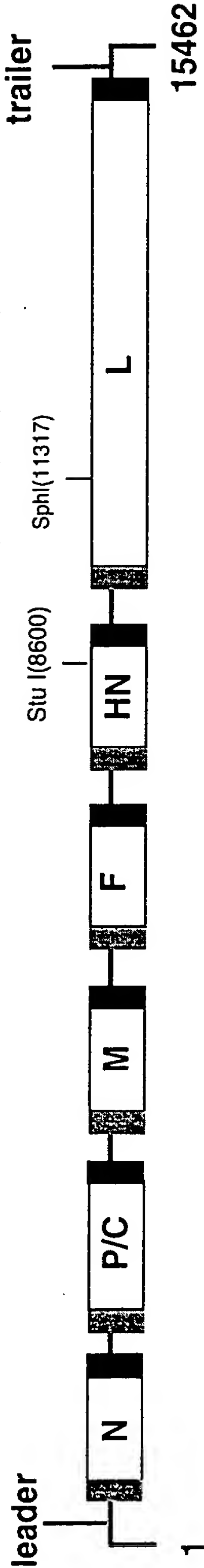
FIG. 1A

Measles HA Insert for the HN-L junction

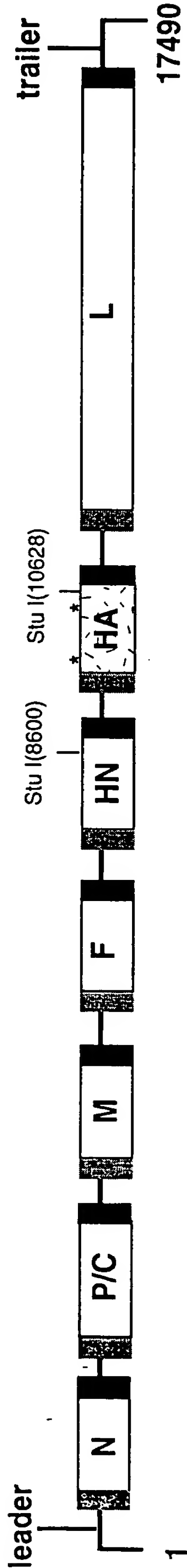


rPIV3 (encoded by p3/7(131)2G-Stu)

FIG. 1B



rPIV3(HA HN-L)



Western blot analysis showing the expression and processing of HA-tagged rCP45L and Measles virus proteins. The blot is divided into five main sections: Mock, rJS, rcp45L(HA P-M), rcp45L(HA N-P), and Measles. Each section contains two sub-lanes, 'a' and 'b'. Molecular weight markers are indicated on the right side of the blot, ranging from 220 kD to 14.3 kD. The HA tag is indicated by a solid black arrowhead, and the HN tag is indicated by an open arrowhead. The rcp45L(HA P-M) and rcp45L(HA N-P) constructs show a prominent band at approximately 97.4 kD in lane 'b', indicating successful processing. The Measles virus section shows a band at approximately 97.4 kD in lane 'b', indicating successful processing of the HA-tagged Measles virus protein.

FIG. 2

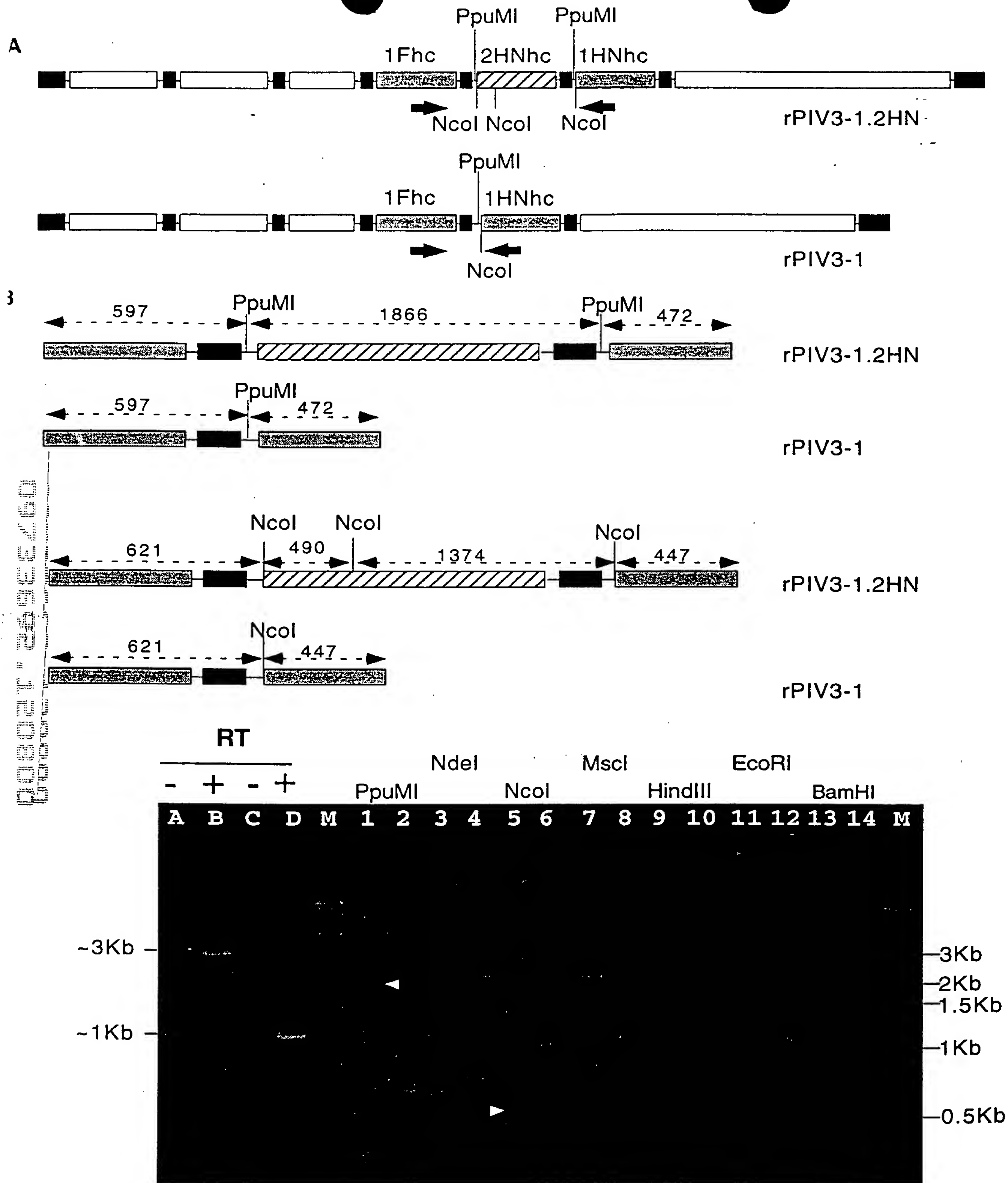


FIG. 4

09732692-120800

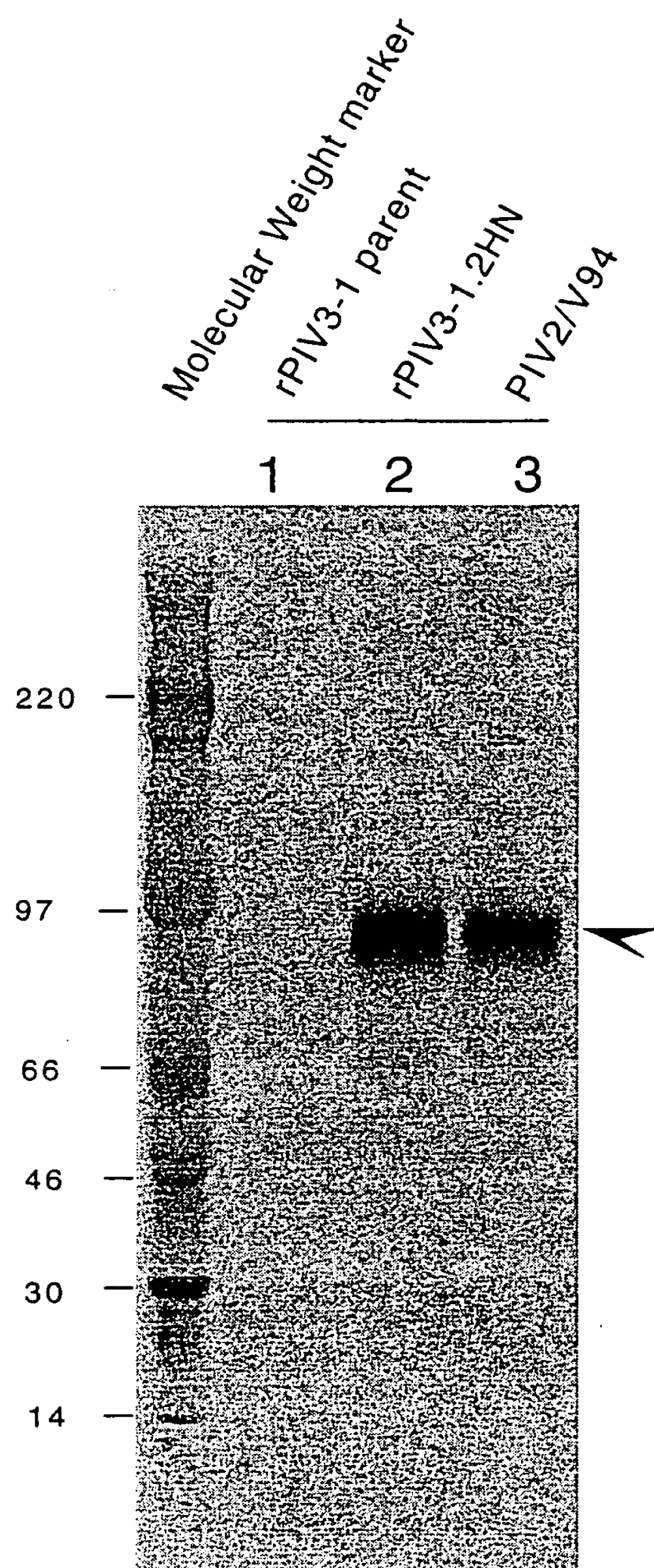


FIG. 5

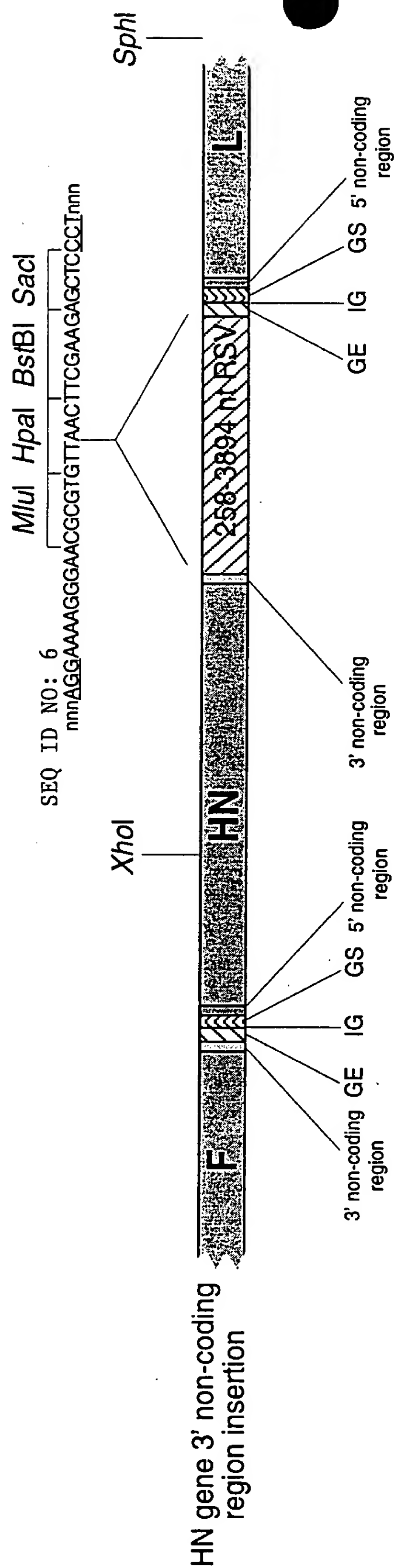
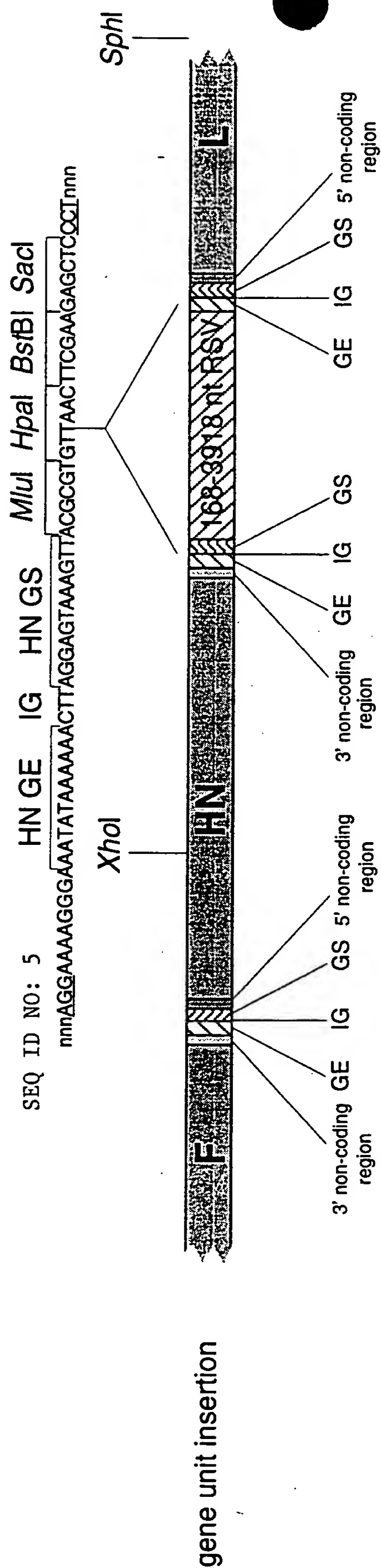
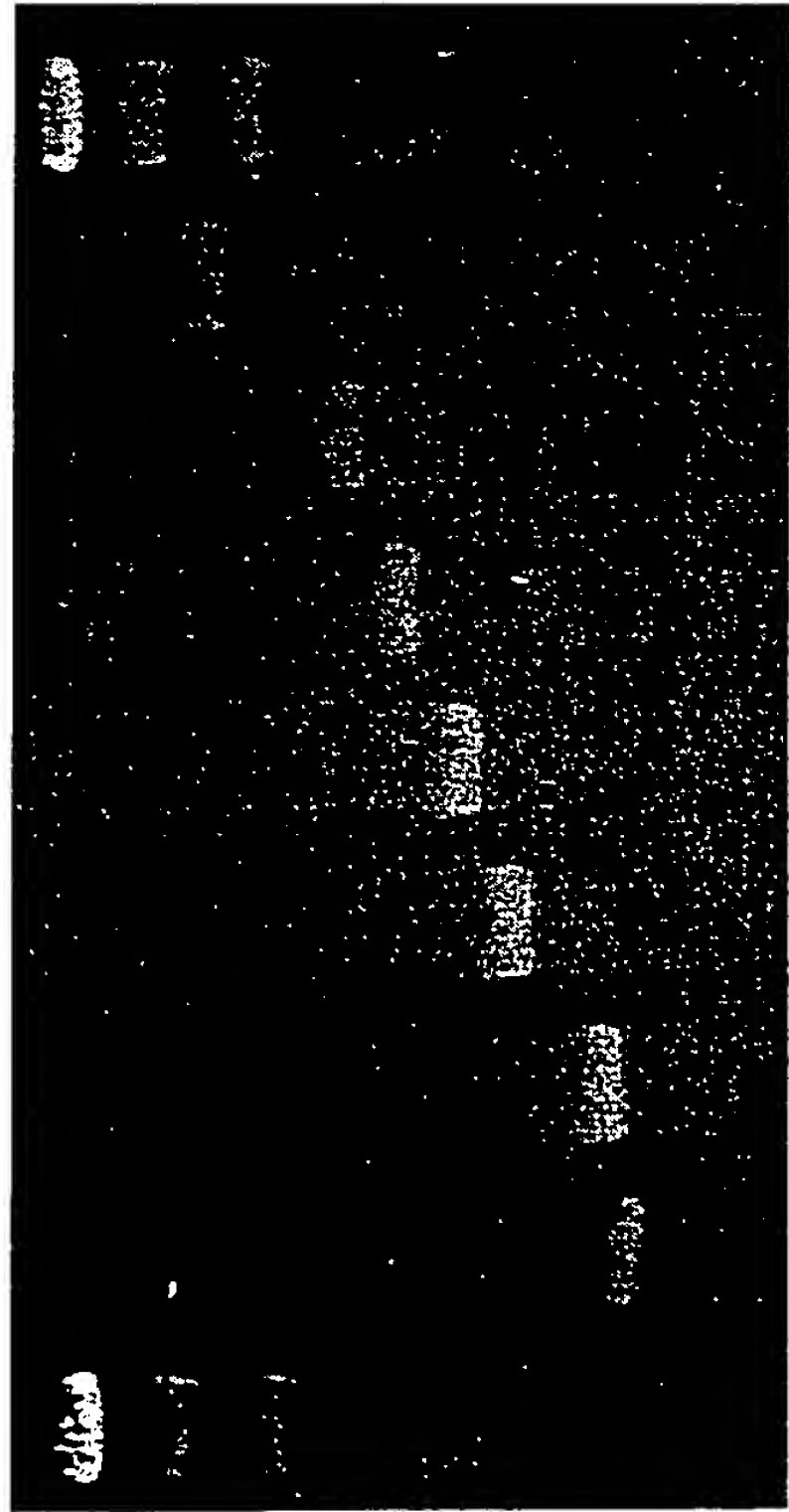


FIG. 6

A

M 1 2 3 4 5 6 7 M



B

M 1 2 3 4 5 6 M

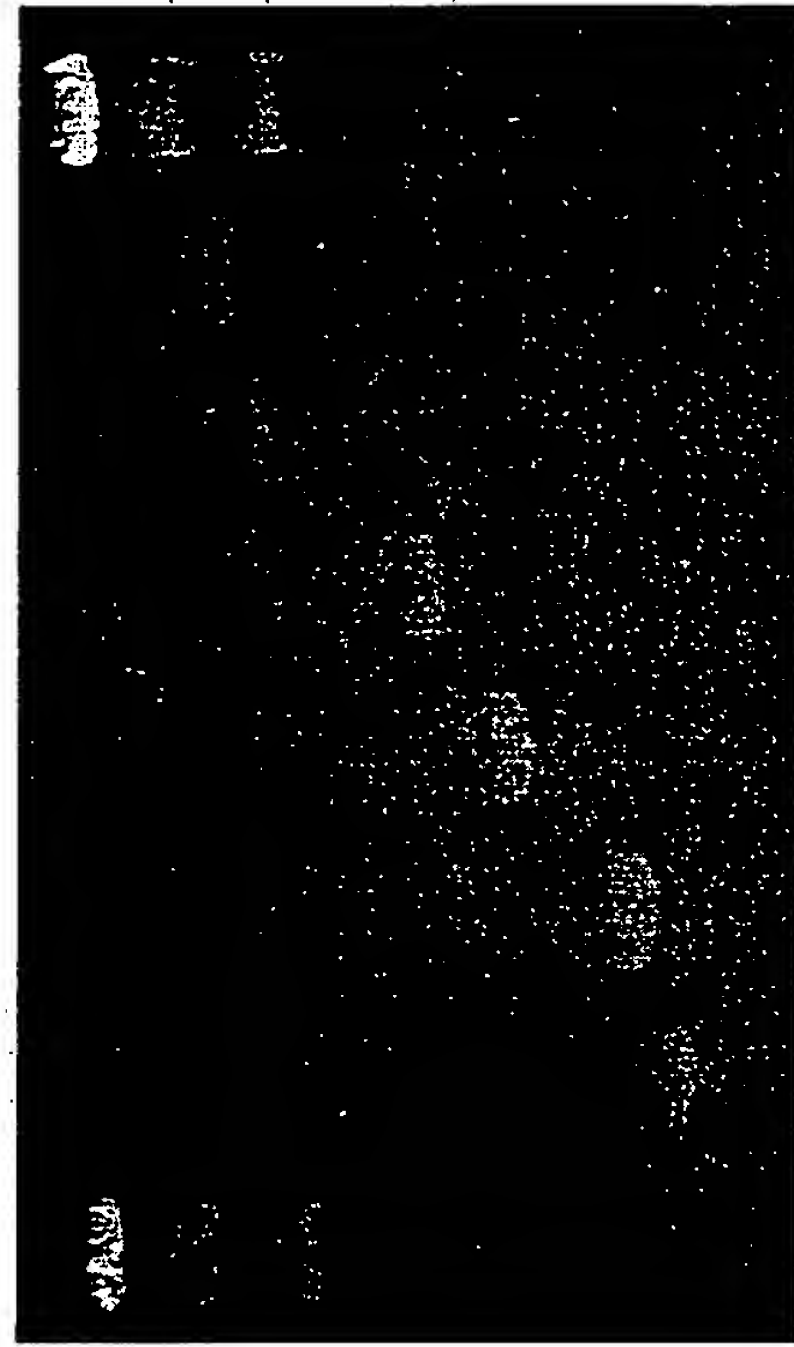
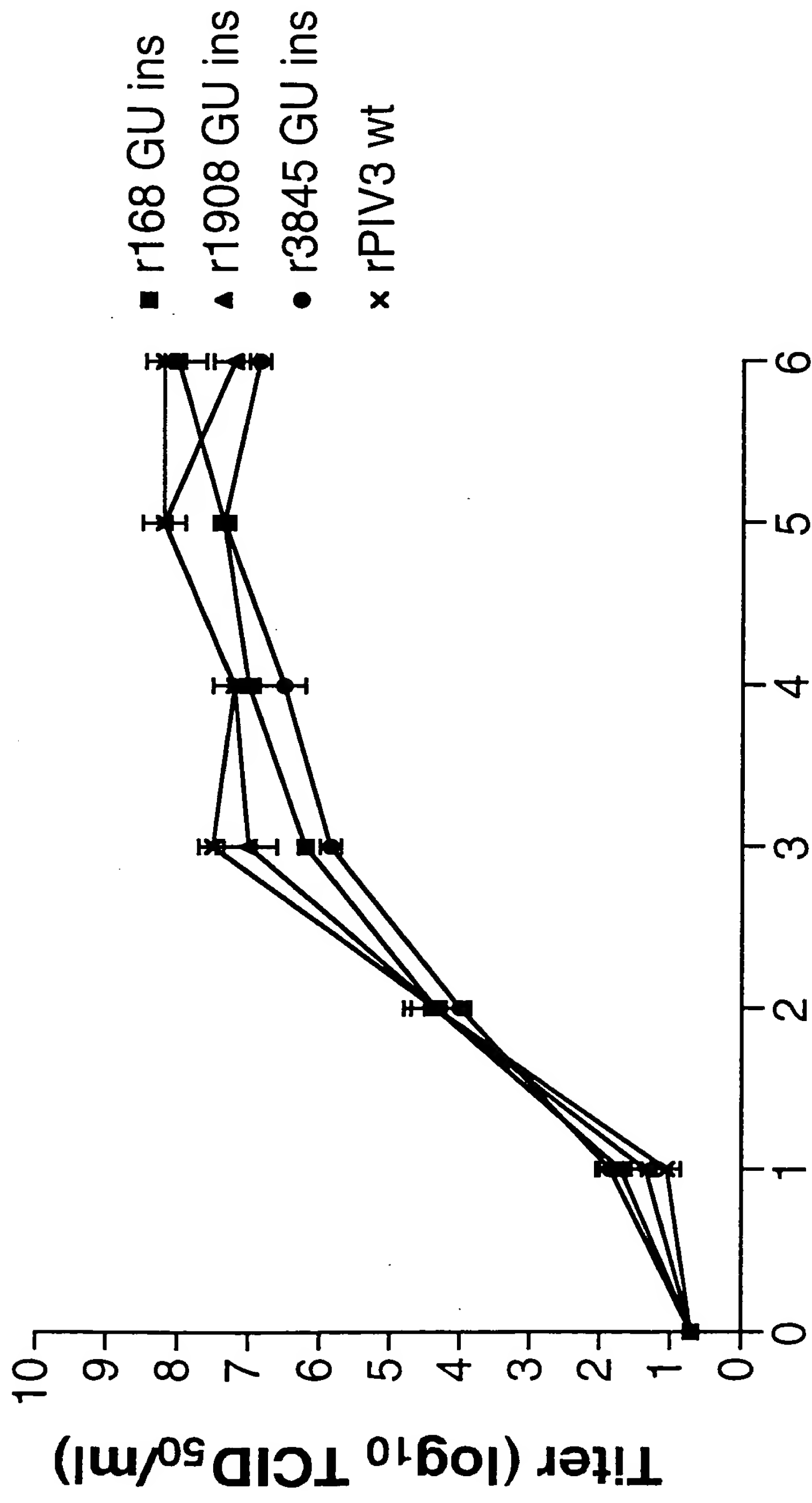


FIG. 8



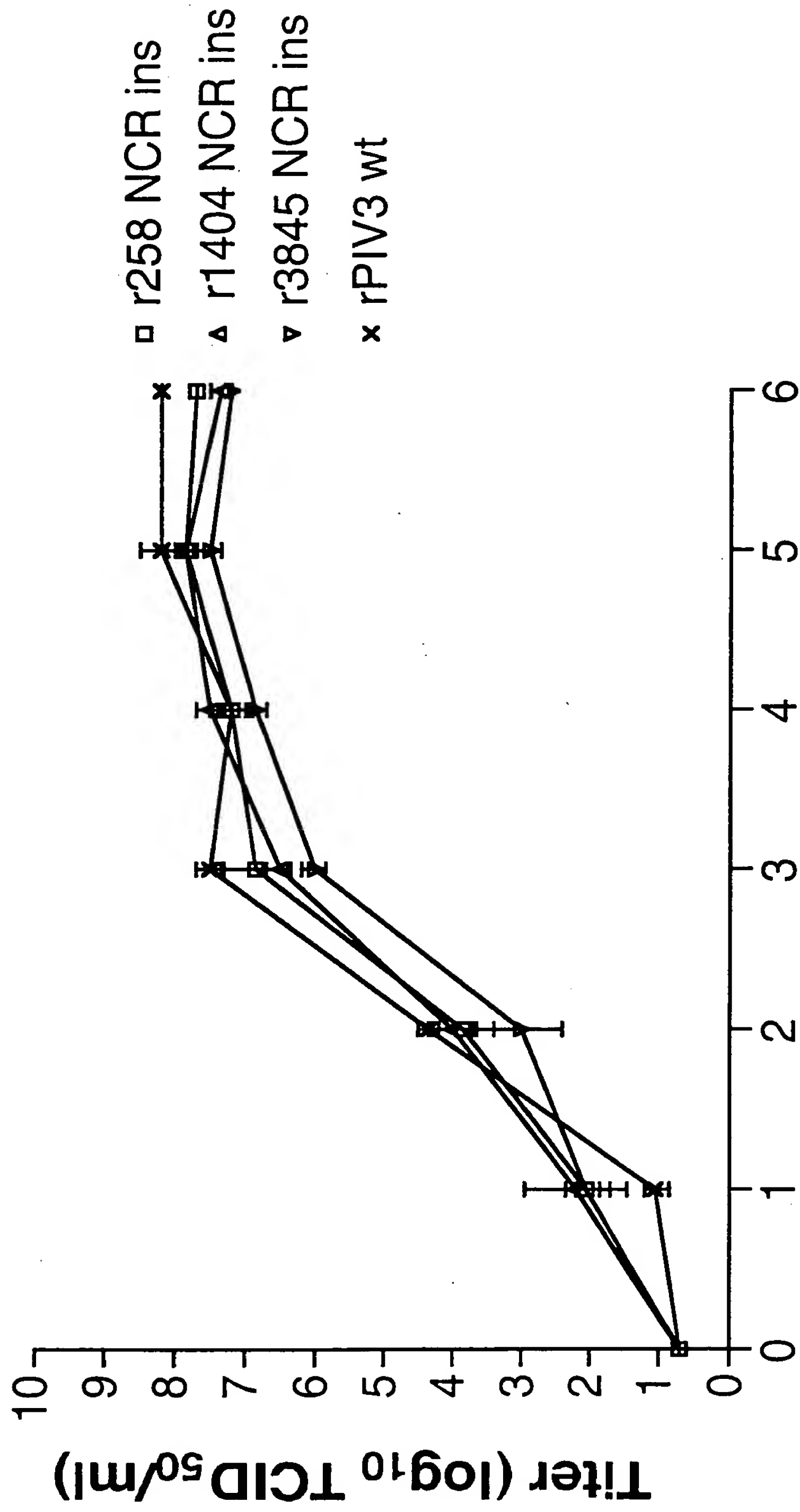


FIG. 9B

Days post-infection

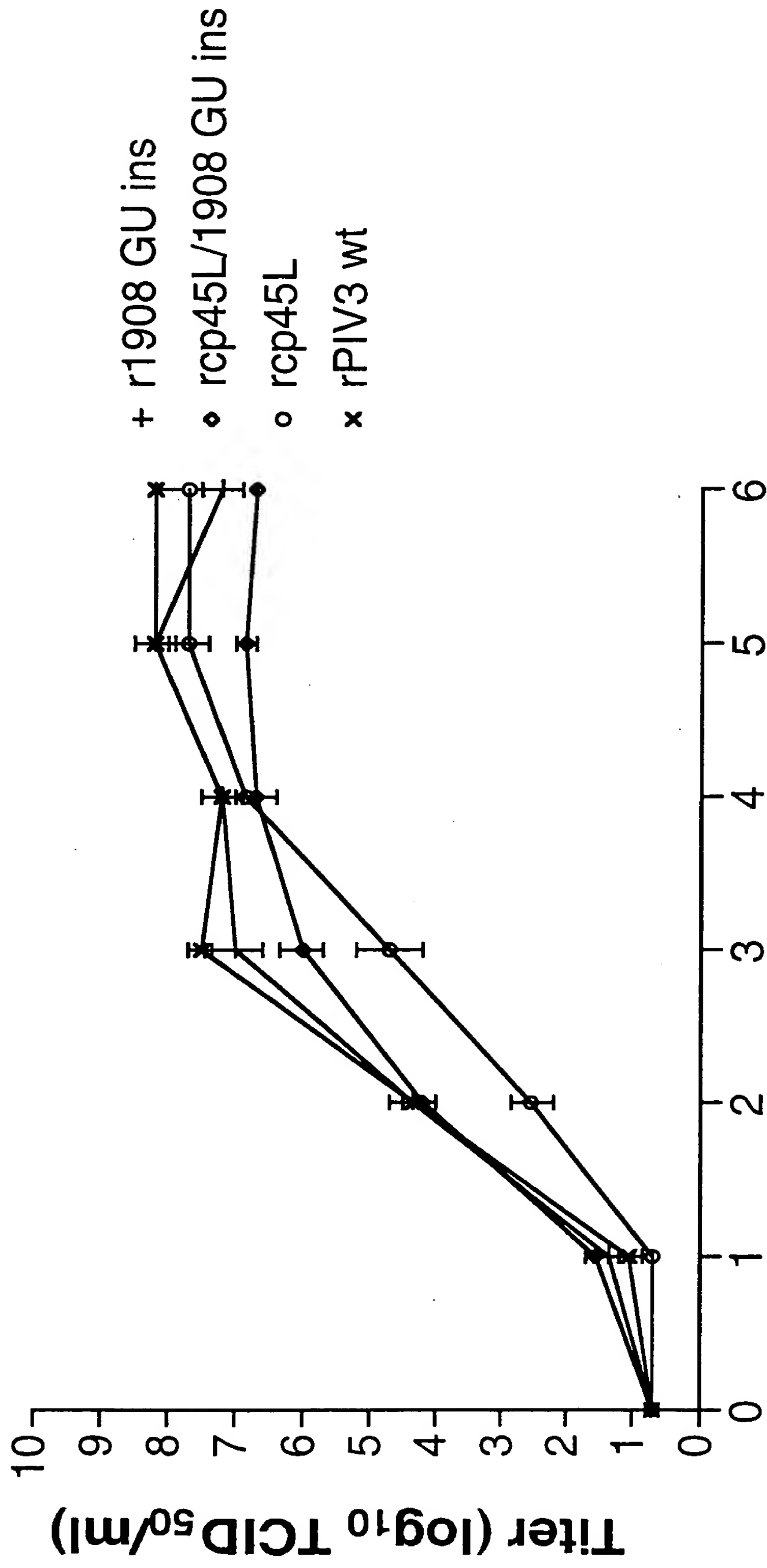


FIG. 9C

Days post-infection

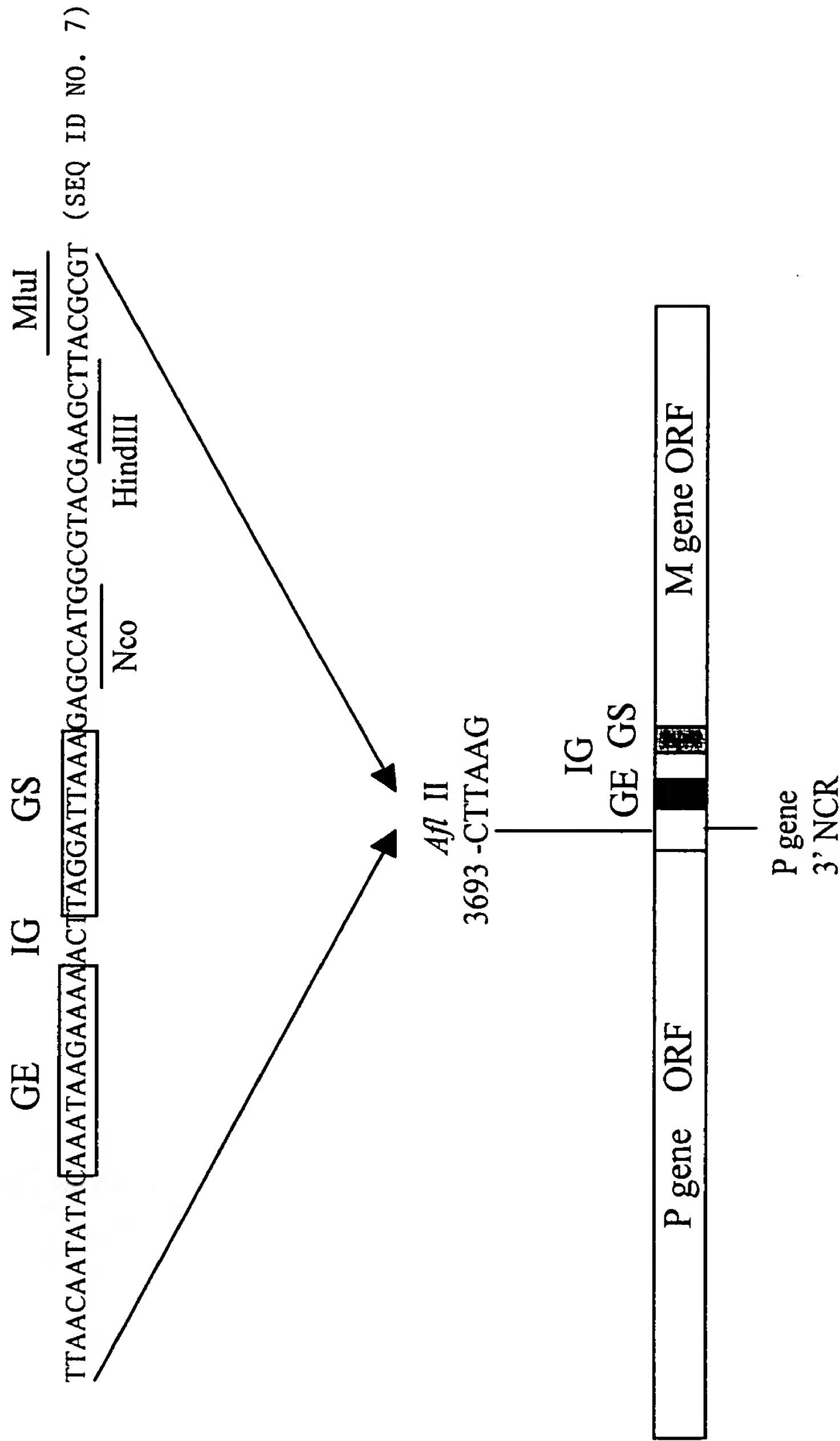


FIG. 10

FIG. 11

	Mean peak titer (log10 TCID50/ml) ^a								Reduction in titer at 39°C (log10 TCID50/ml) ^b		
rHPIV3 wt	5	N	P/C/D/M	M	F	HN	L		9.4	0.3	
rHPIV3 1HN _{N,P}	5	N	HN _{N,P}	P/C/D/M	M	F	HN	L	7.4	0.7	
rHPIV3 1HN _{P,M}	5	N	P/C/D/M	HN _{N,P}	M	F	HN	L	7.9	2.3	
rHPIV3 2HN _{N,P}	5	N	HN _{N,P}	P/C/D/M	M	F	HN	L	7.9	0.3	
rHPIV3 2HN _{P,M}	5	N	P/C/D/M	HN _{N,P}	M	F	HN	L	9.2	0.5	
rHPIV3 1HN _{N,P} 2HN _{P,M}	3	N	HN _{N,P}	P/C/D/M	HN _{N,P}	M	F	HN	L	8.5	0.8
rHPIV3 1HN _{N,P} 2HN _{P,M} HA _{HN-L}	3	N	HN _{N,P}	P/C/D/M	HN _{N,P}	M	F	HN	L	7.7	3.0
rHPIV3 1HN _{N,P} 2HN _{P,M} 3918GU _{HN-L}	3	N	HN _{N,P}	P/C/D/M	HN _{N,P}	M	F	HN	L	8.7	2.0

FIG. 11

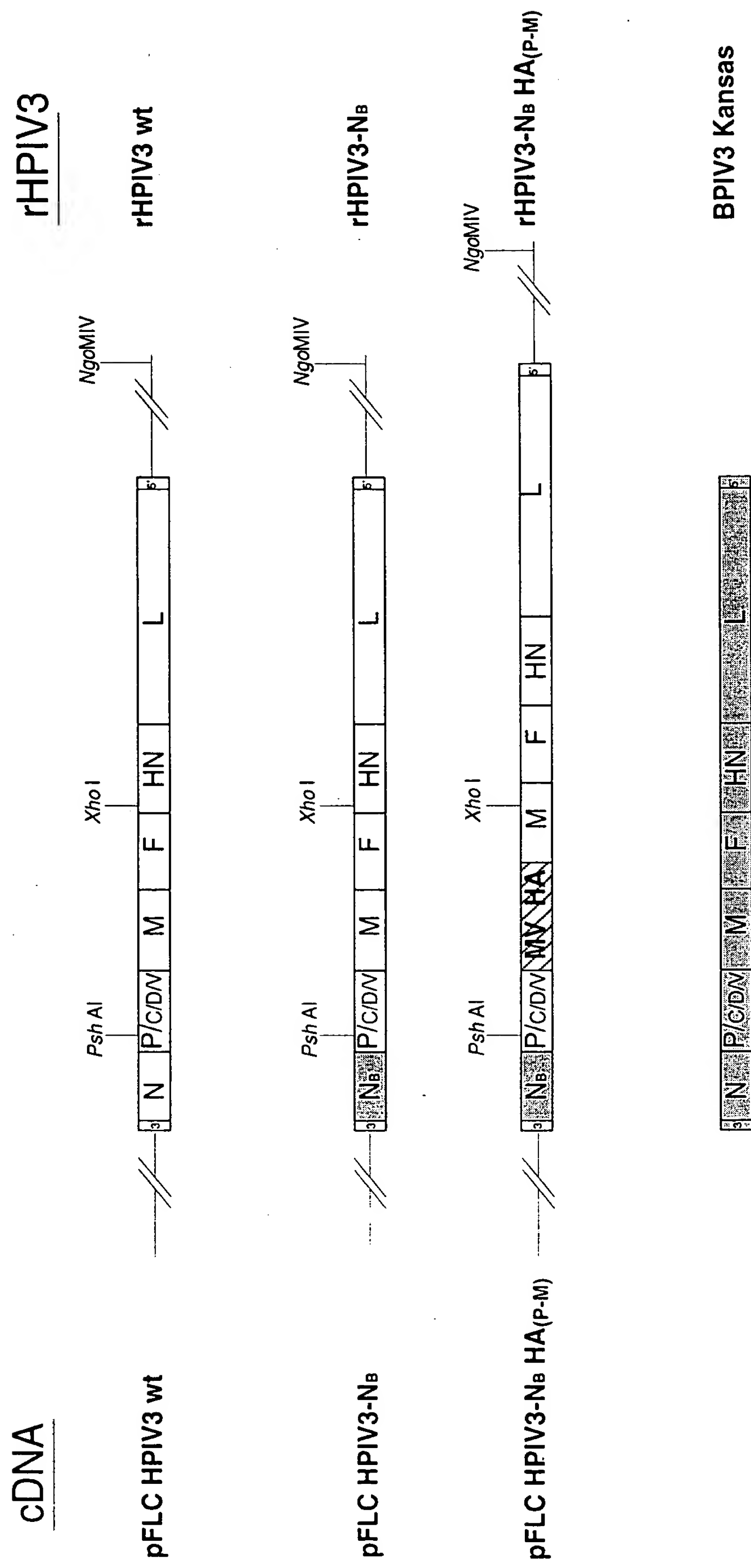


FIG. 12

Insertion of RSV G or F as an additional gene unit in a promoter-proximal position

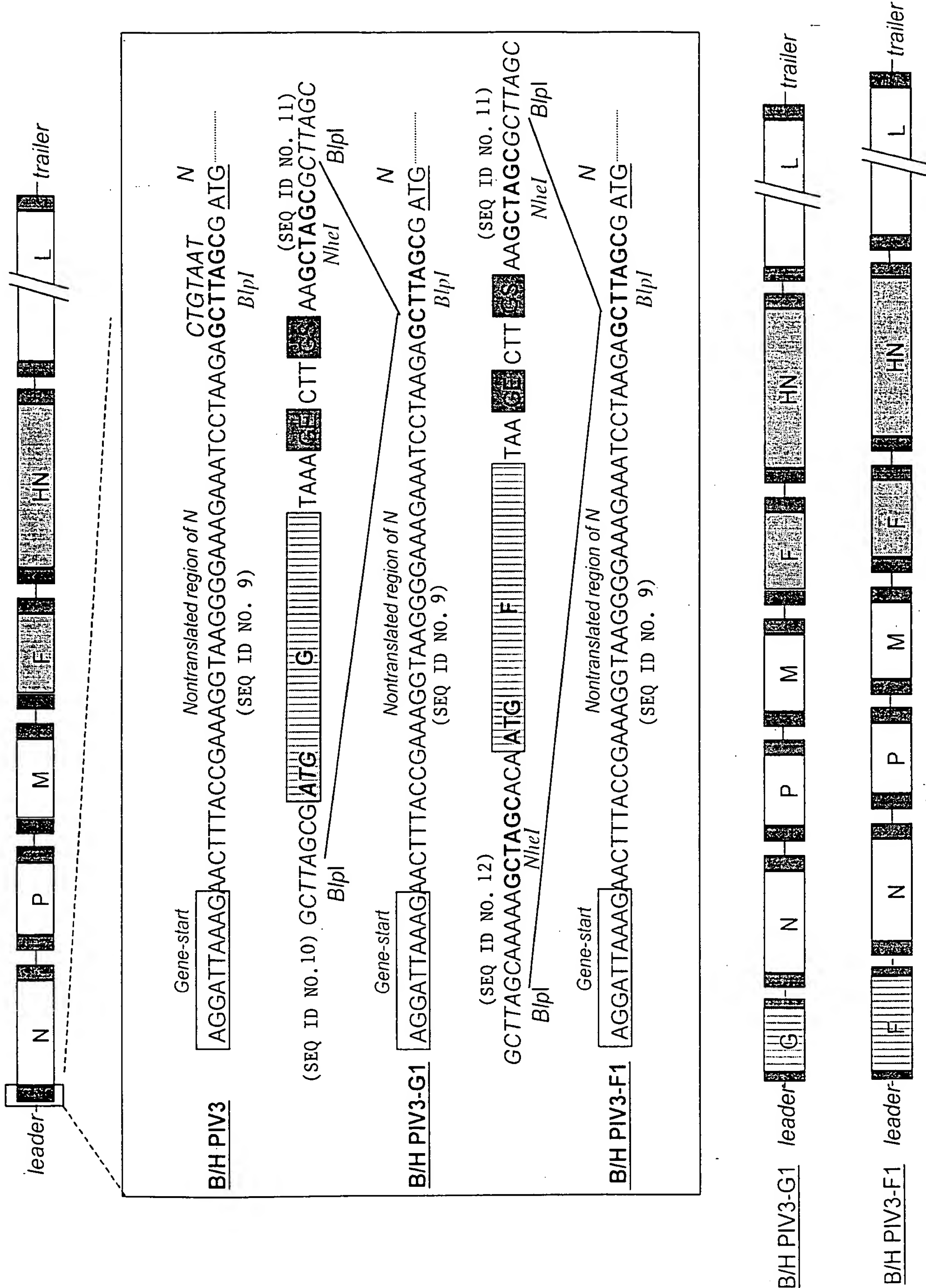


FIG. 13

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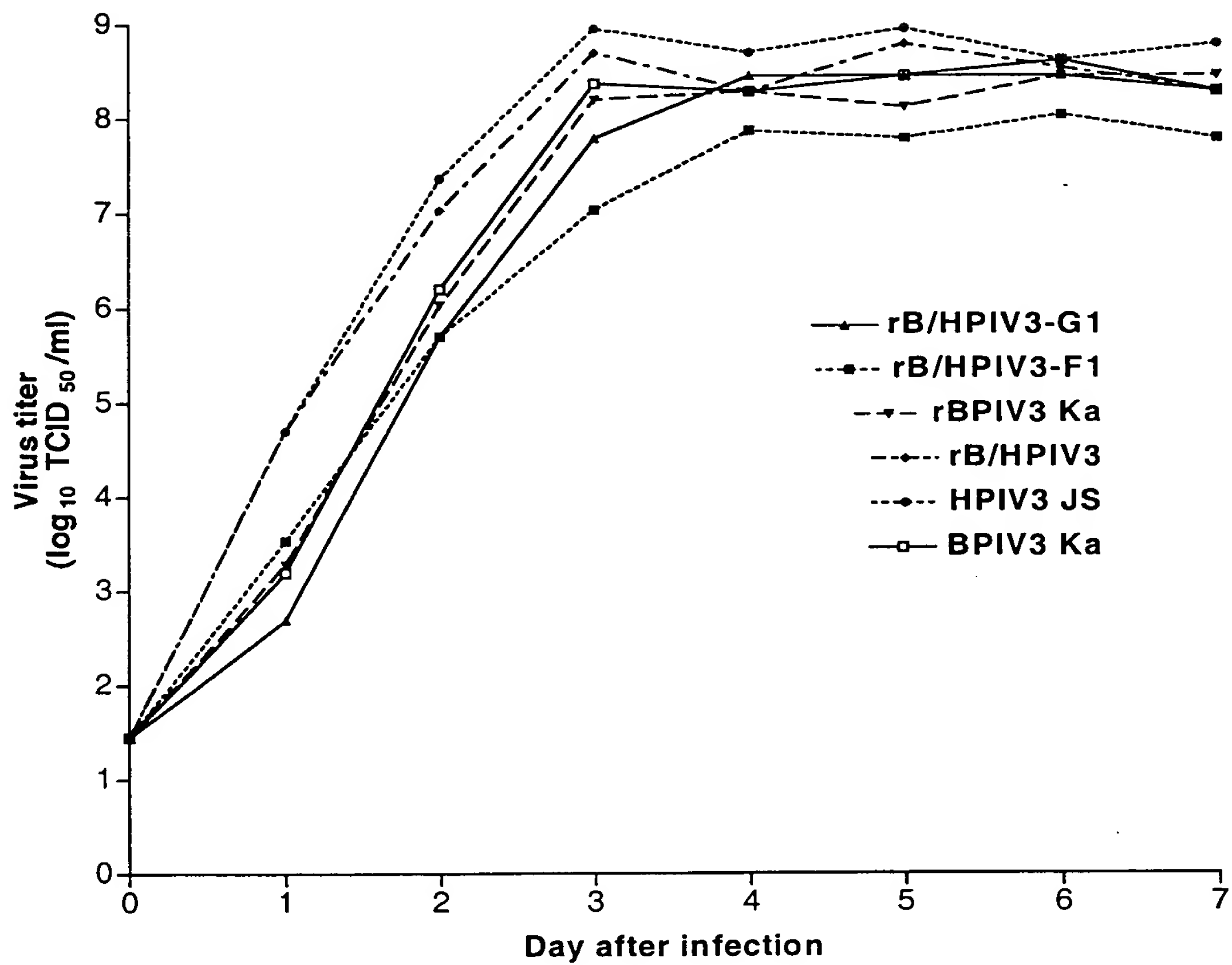
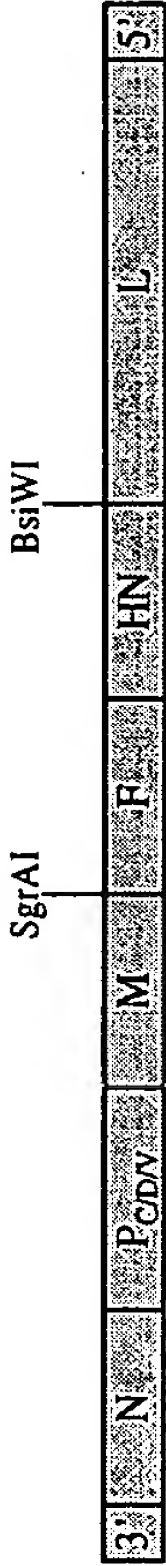


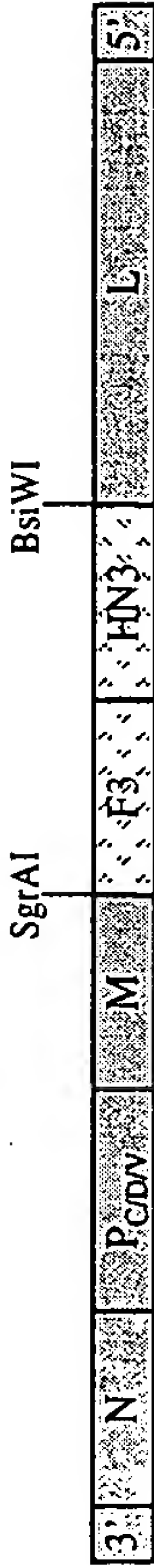
FIG. 14

Recombinant Bovine/Human PIV3.1 expressing HPIV2 F and HN from supernumerary genes

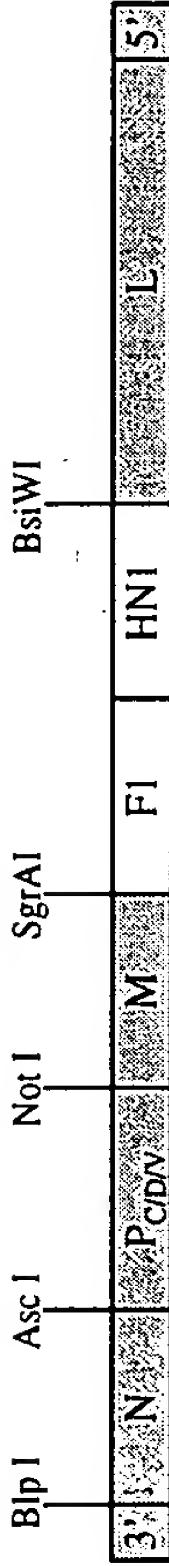
#1: rBPiV3



#2: rB/HPIV3



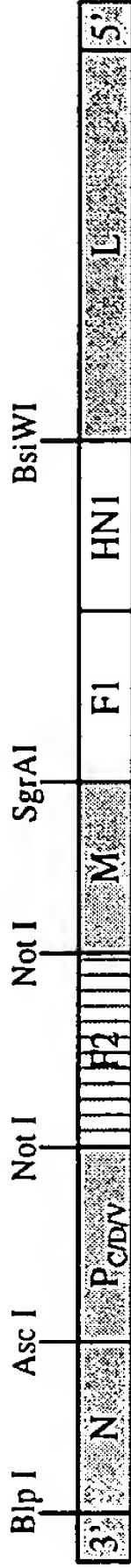
#3: rB/HPIV3.1



#4: rB/HPIV3.1-2HN



#5: rB/HPIV3.1-2F



#6: rB/HPIV3.1-2HN,2F

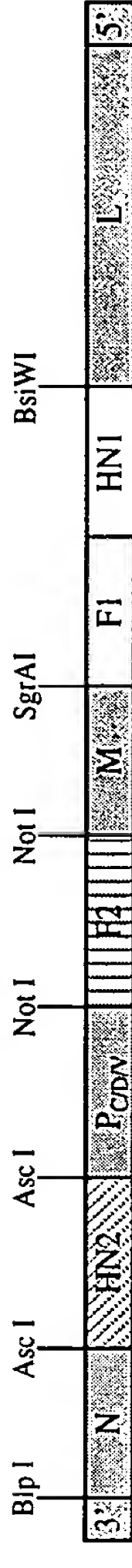


FIG. 15

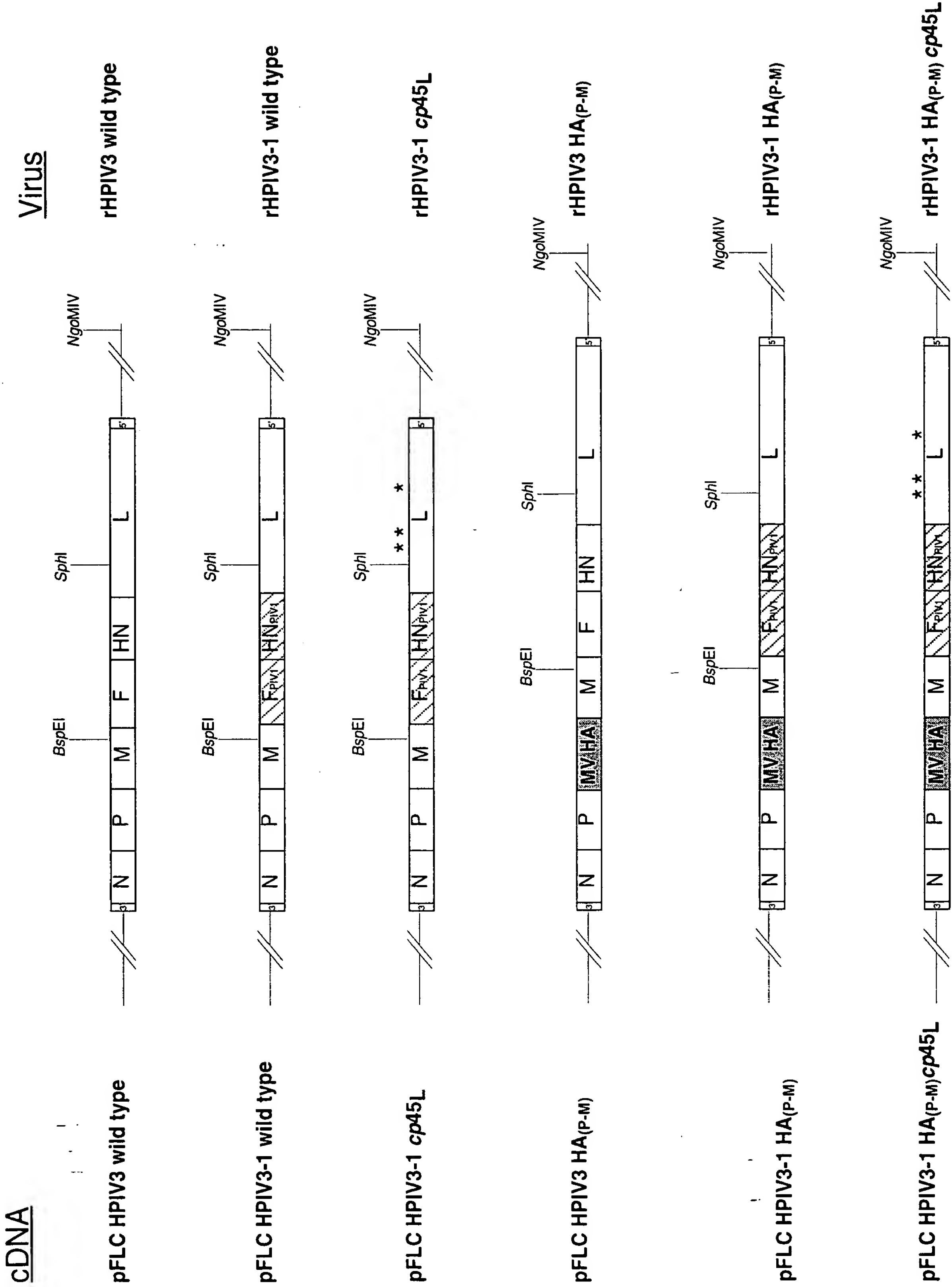


FIG. 16

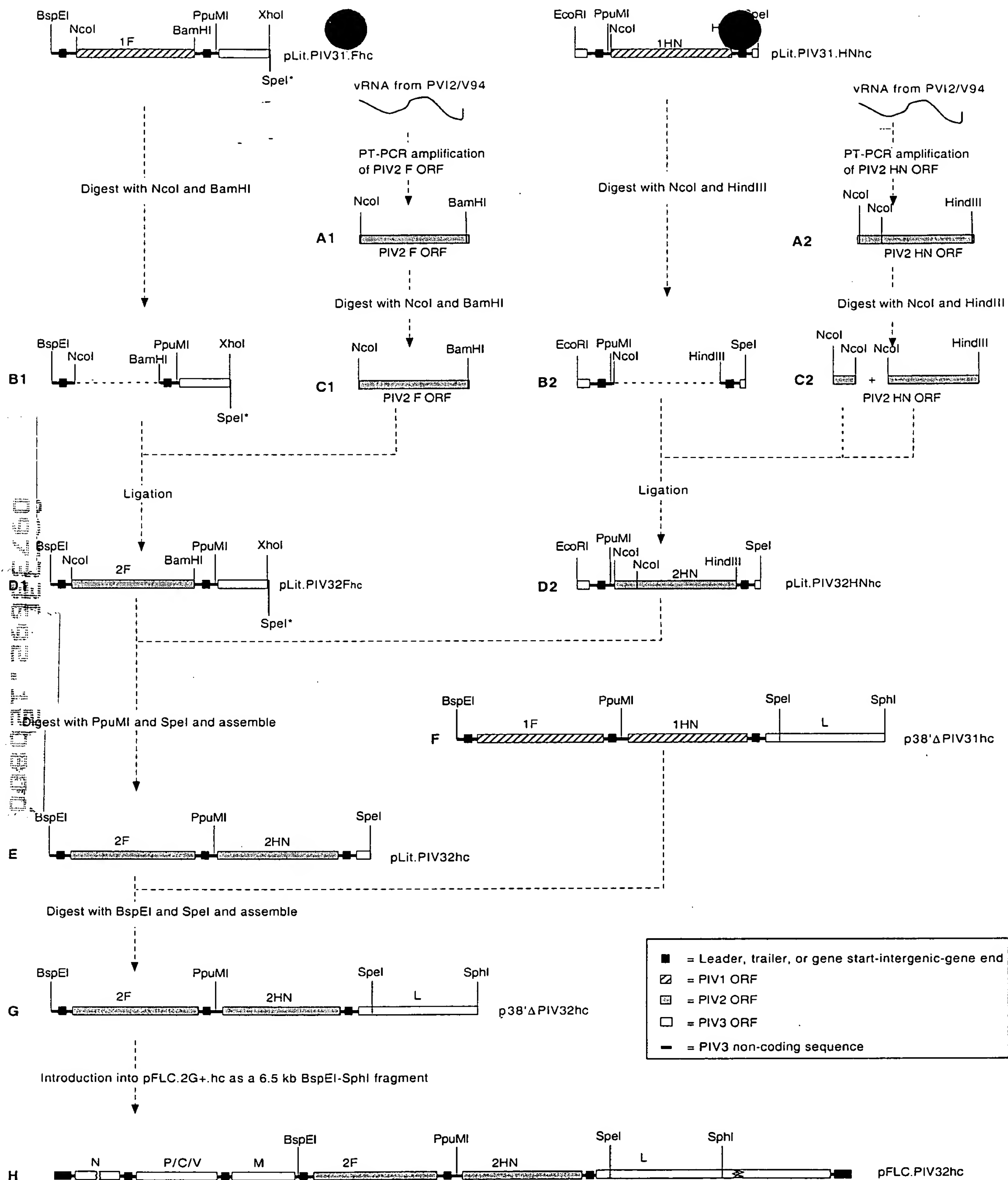


FIG. 17

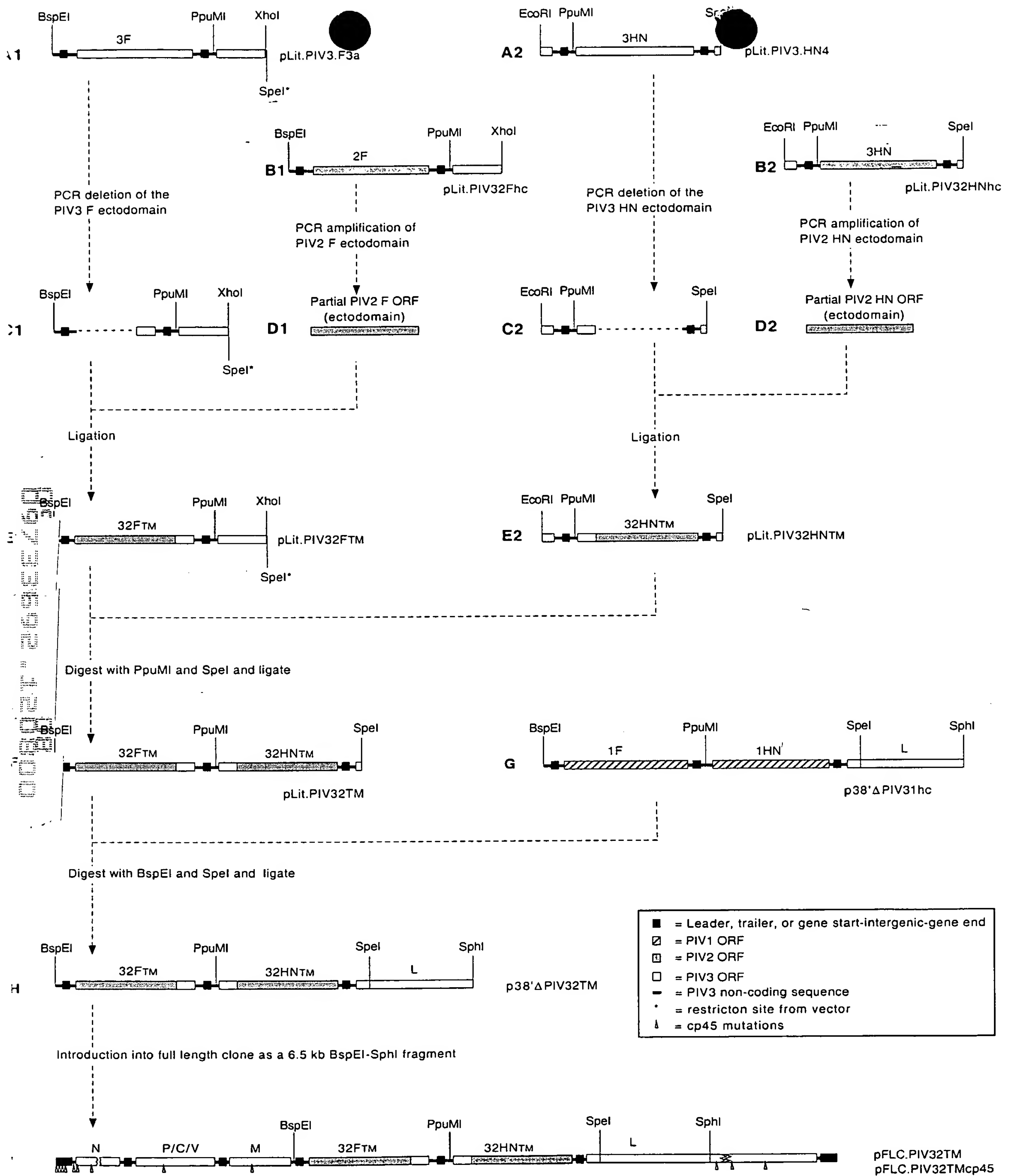


FIG. 18

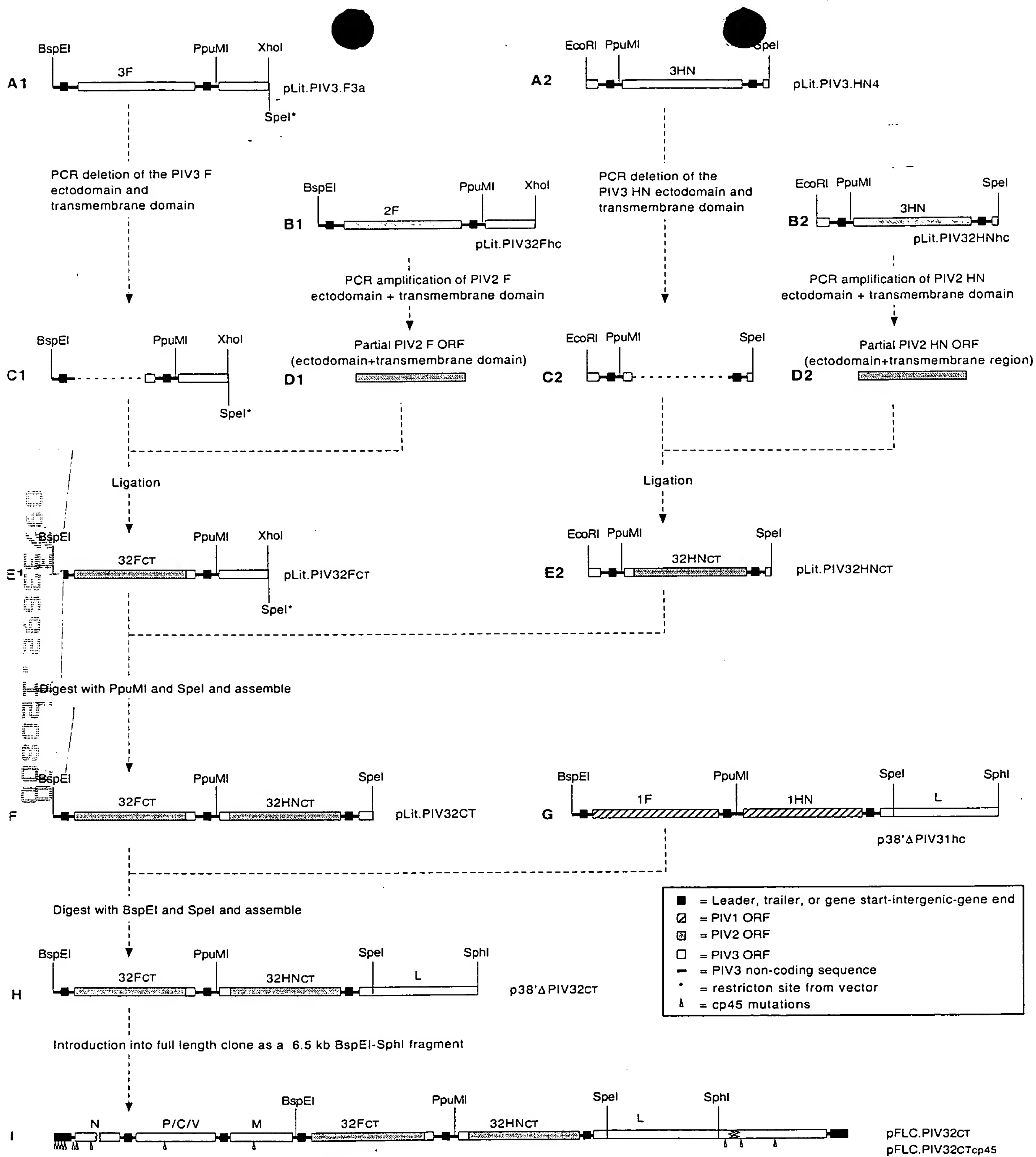
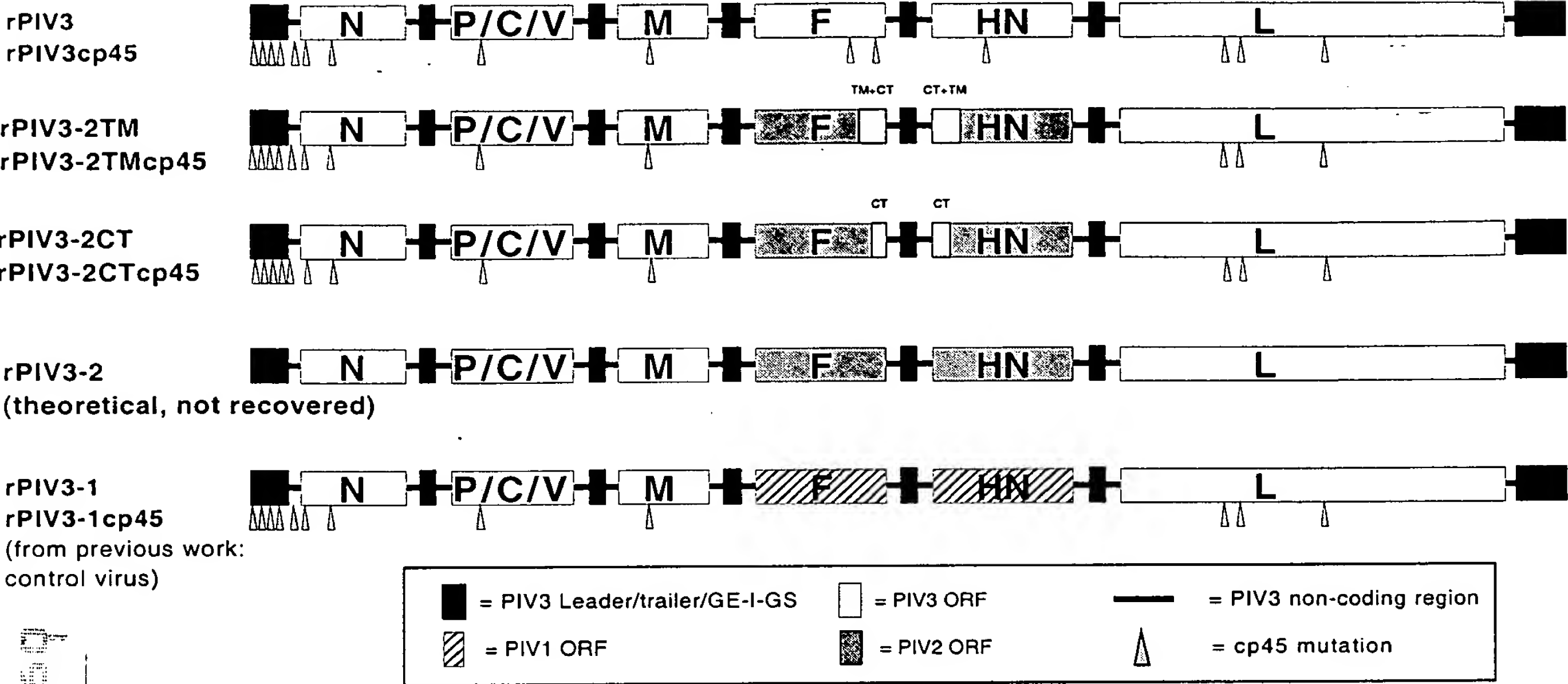
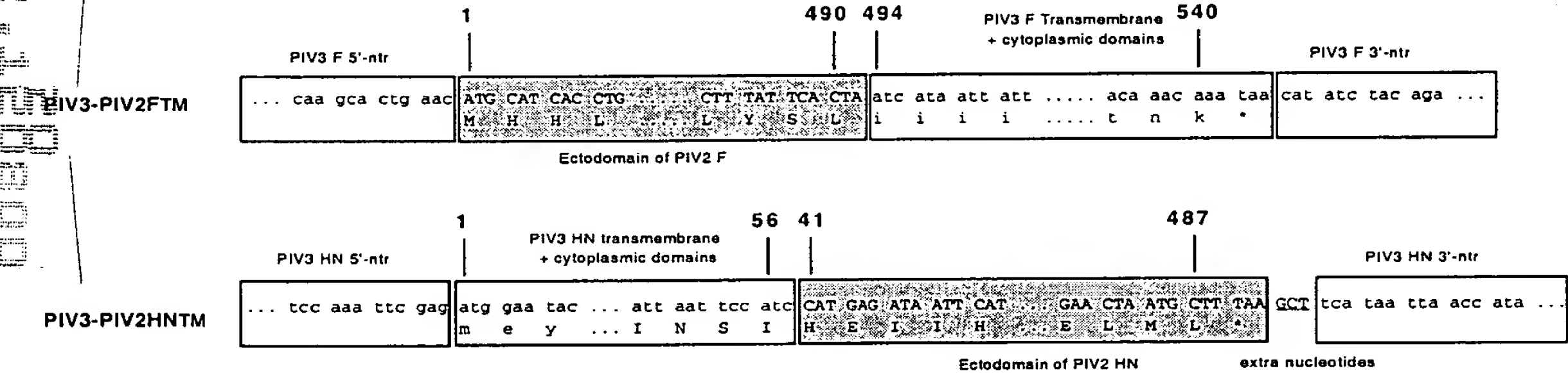


FIG. 19

A. Genetic structures of PIV3-~~chimeric~~ viruses compared with rPI~~parent~~ and rPIV3-1



B. Chimeric PIV3-2 F and HN constructs with transmembrane and cytoplasmic domains derived from PIV3 F and HN



C. Chimeric PIV3-2 F and HN constructs with cytoplasmic domain derived from PIV3 F and HN

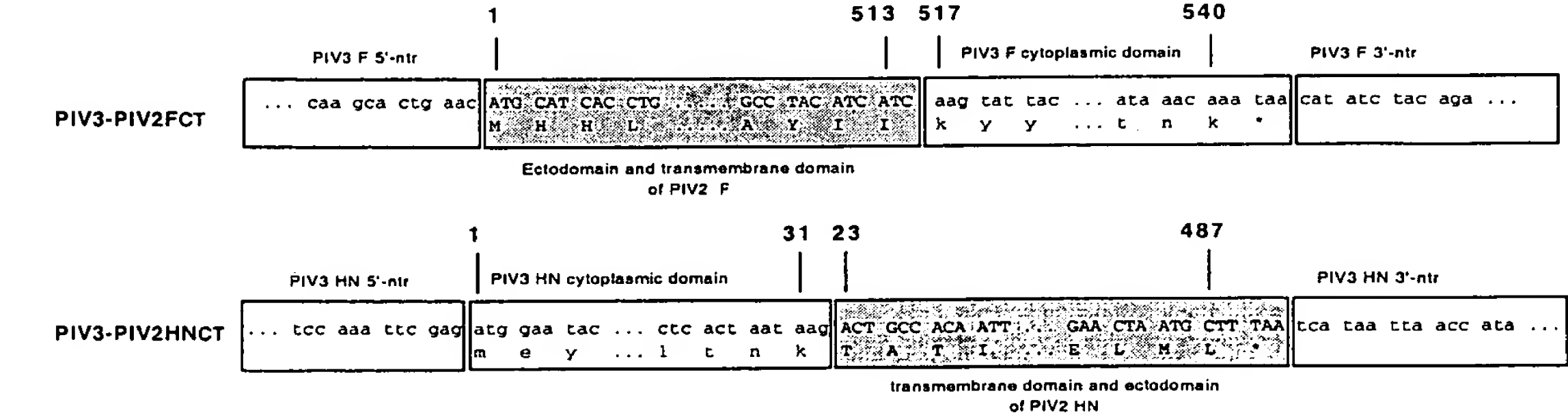
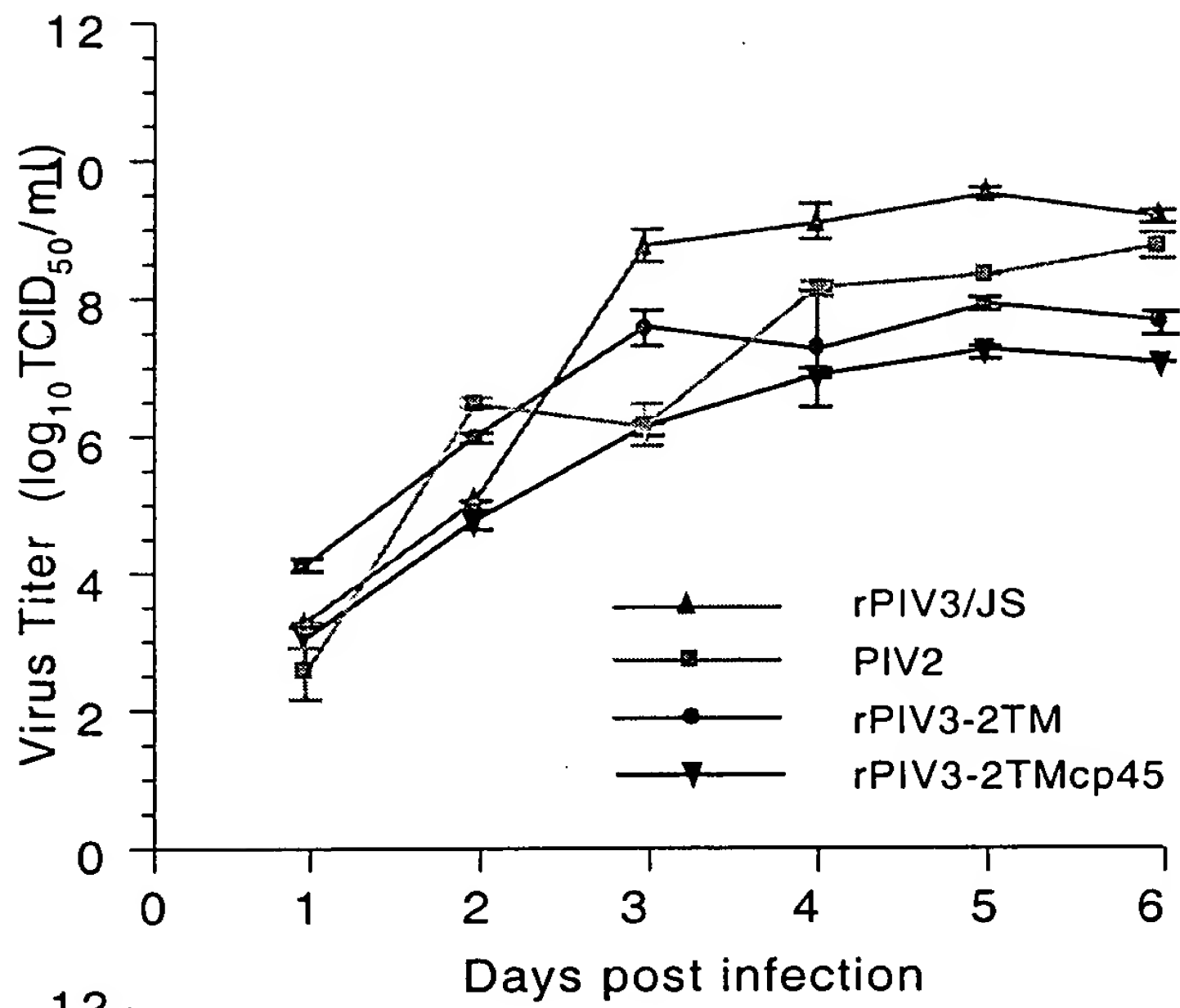


FIG. 20

A



B

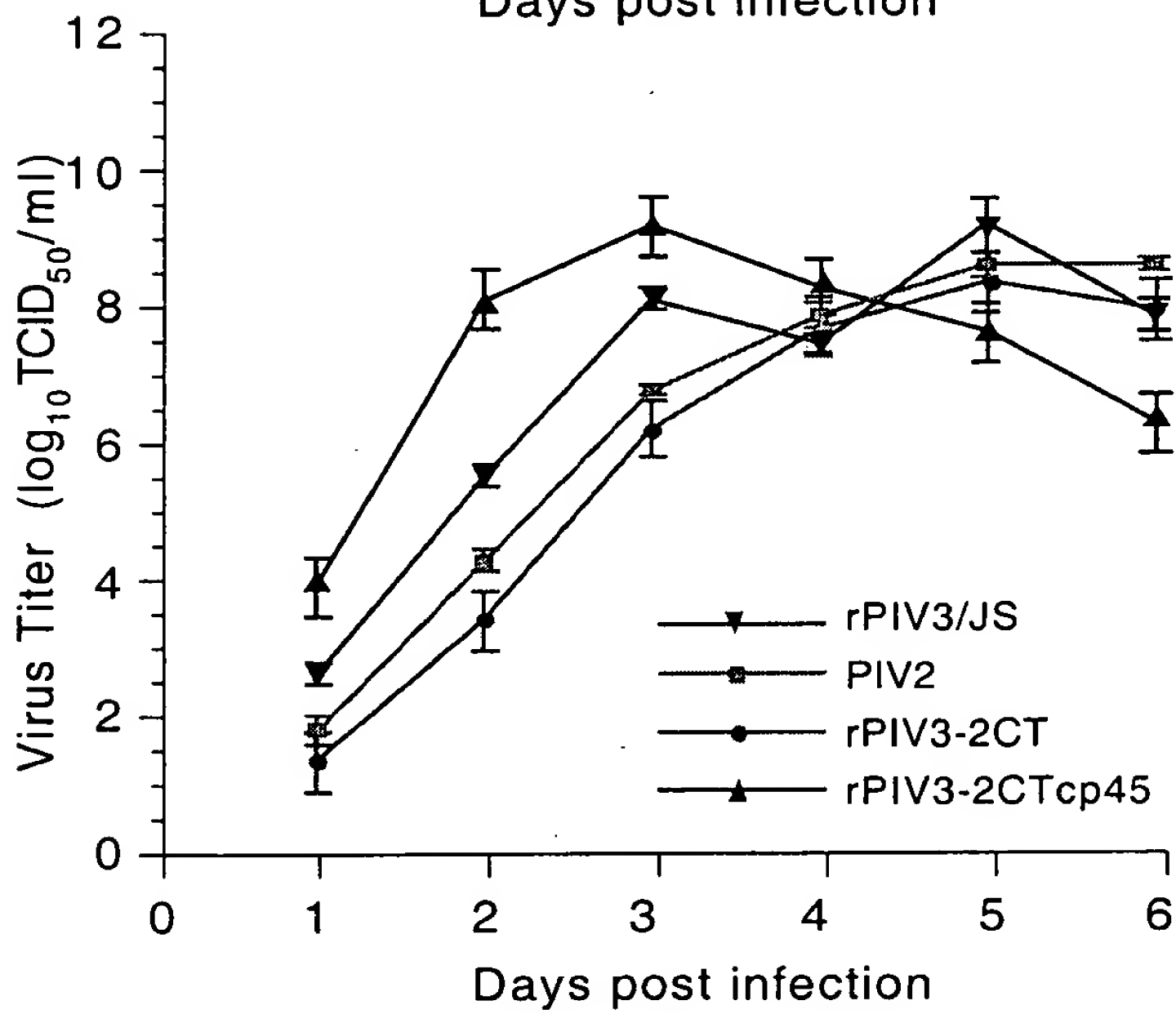


FIG. 21